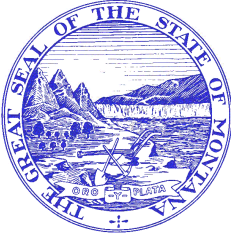


DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

Trust Land Management Division



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ROYALTY RATE REVIEW AND COMMENTS State of Montana Oil and Gas Leases

Dear Interested Party:

The department's report on oil and gas royalty rates is attached for your review. This report was presented as an informational item to the State Land Board at their July 18, 2005 meeting. The Land Board directed the department to solicit industry and general public comment on the report for the board's consideration at their August 15, 2005 meeting. Additional comment was also taken at the August 15th meeting.

After consideration of the information and comments presented, the Land Board voted to increase the royalty rate on state school trust land from their current rates of 12.5% for gas and 13.0% for oil to 16.67% for both oil and gas. The board implemented this increase for the September 7, 2005 lease sale, along with commencement of rulemaking to consider making this rate the standard rate for future sales.

This decision affects only new leases. It does not change the royalty rates on existing leases.

I appreciate your interest in the management of Montana's school trust lands. Please contact me if you have any questions.

Sincerely,

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ROYALTY RATE REVIEW

State of Montana Oil and Gas Leases

Comparison to Adjacent States
Analysis of Market and Industry Data
Public Comment Review



Prepared By

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Department of Natural Resources & Conservation

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July 5, 2005

Revised w/ Public Comments & Department Review:

August 3, 2005

Additional Comments (received pre-Land Board):

August 14, 2005

Additional Comments (received post-Land Board):

August 31, 2005

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EXECUTIVE SUMMARY

The royalty rate is a key component of fair market value as it relates to oil and gas leases. Royalty rates for oil and gas leases on state land are established under the authority of the State Board of Land Commissioners. The current royalty rates are 12.5% for gas and 13% for oil. This report summarizes and presents information relevant to the consideration of the appropriate royalty rate for oil and gas leases issued by the Board on state school trust lands. Pertinent information falls into three main categories: comparison with other mineral owner royalty rates; overriding royalty information; and industry examples of royalty rates used in economic calculations on producing leases.

The department requests the Board's consideration of whether or not an increase in state land royalty rate is warranted. This report presents a number of options to the Board. Pertinent issues and options related to rulemaking and lease sale process are also presented. The department recommends, based on a review of the information presented, that the Board adopt an increase from current rates to a royalty rate of $1/6^{\text{th}}$ (16.67%), effective as of the September 7, 2005 lease sale.

INTRODUCTION

The State of Montana School Trust includes approximately 6.2 million acres of oil and gas mineral rights. Approximately 1.3 million acres are currently under lease for oil and gas exploration and development. Of that, commercial reserves have been found and developed on about 200,000 acres. Mineral exploration and development is inherently speculative. Just as not all surface land possesses the qualities for growing crops, not all mineral sub-surface land possesses the geologic characteristics needed for the generation and accumulation of oil and gas. While very few tracts of land contain commercial quantities of oil and/or gas, those that do can produce significant revenue for the mineral owner. For example, preliminary figures show school trust mineral lands generated over \$23.6 million dollars in fiscal 2005.

The royalty rate is a key component of fair market value as it relates to revenue the state school trusts receive for the oil and gas removed from their lands. These royalty rates are established under the management authority of the Board.

The number of leases issued by the Board for minerals other than oil and gas are relatively few in number. Their royalty rates are examined on an individual lease basis as an integral part of the department's review process. The royalty rate then becomes a part of the department's recommended lease provisions for Board consideration.

Unlike other minerals, oil and gas activity on state land involves the auctioning, approval and issuance of several hundred leases each year. The auction process and number of leases handled requires the establishment of a standard royalty rate that, absent unique circumstances, is representative of fair market value.

LAND BOARD AUTHORITY

Article X of Montana's Constitution established the State Board of Land Commissioners, and tasked it with managing school trust lands on behalf of the trust beneficiaries and the people of Montana. Implementing statutes are found at Title 77 of Montana Code. 77-1-202 and -301, MCA define powers and duties of the Board and department, respectively. 77-3-401 et seq., MCA specifically authorizes issuance of oil and gas leases by the Board in such manner as it may determine, not inconsistent with The Enabling Act and upon the terms and conditions prescribed in statute.

77-3-432, MCA specifically requires the reservation of a royalty in all oil and gas produced, which must be equivalent to the fair market value, as ascertained by the Board at lease issuance. It also provides a floor or minimum royalty rate of 12.5%.

BACKGROUND

What Is A Royalty?

Unless a mineral owner is actually a company engaged in the exploration and production of oil and gas, they will almost universally seek development of their mineral estate through leasing. Even mineral companies sometimes lease their ownership to other parties for actual development. The reason? -- Leasing transfers the risk and expense of mineral exploration and development to a third party, while the royalty clause reserves to the mineral owner a cost-free share of the value of any commercial reserves that may be found to exist on their property.

Oil and gas leases typically include two basic forms of payments – rentals and royalties. Rentals come by different names and formats (annual, paid-up, bonus, delay drilling, advance royalty, etc.) but all have the common function of providing the mineral owner payment for conveying the exploration and production rights to the lessee. Rental payments do not transfer ownership of the mineral to the lessee. By contrast, the royalty payment is linked to the actual production of minerals. It is the “purchase” price for the mineral lessee to acquire title to the minerals that are produced and removed from the mineral owner's property.

Royalty clauses are of two general types: a price per unit of mineral removed, or a percentage of the value of the mineral removed. Price per unit royalty clauses are generally seen for products whose characteristics and valuation are known and relatively stable, or are being utilized directly by the lessee and not sold. For minerals such as oil and gas, the characteristics that affect its value are unknown at lease issuance. Commodity value for oil and gas also fluctuates over time, primarily based on external factors unrelated to specific production of oil and/or gas from the property being leased. Percentage of value royalty provisions are almost universally utilized because they inherently adjust to the volume and quality of the mineral produced, as well as variations in the market price of the mineral.

The mineral lessee is contractually responsible for making proper payment of royalties to the mineral owner. In practice, the lessee, operator or purchaser will actually account for and submit royalty reports and payments to the department for state-owned lands. The simplest case is a well on a state oil and gas lease that is producing oil not shared with any other mineral owner. Gross value of production is a function of volume and price, and the state share is the royalty percentage share of that gross value. A sample calculation would be as follows:

Volume Produced:	10,000 barrels
Price:	\$40.00 per barrel
Gross Value:	\$400,000
Lease Royalty Rate:	12.5%
Royalty due State:	\$50,000

If instead the royalty rate was 15%, the royalty received would be \$60,000. The royalty rate determines the value received by the mineral owner for the mineral removed and sold. The royalty rate is therefore a key fair market value component within the mineral lease.

In the above example, the lease royalty rate is 12.5%. This has historically been the industry “norm” for royalty interest. Industry also commonly refers to interests in leases by their fractional equivalent, so the above lease would have a $1/8^{\text{th}}$ royalty interest. The oil and gas lessee’s interest in a lease is the “working interest” which, in this case would be a $7/8^{\text{th}}$ working interest. Use of fractions is part of the historical custom and practice within the industry. Though not essential or universal, the concept largely carries forward. It is still frequently utilized within industry activities and remains a common part of the vernacular to this day.

Royalty vs. Taxes

Royalty rates on state leases are sometimes referred to as part of the “tax” imposed by the state on oil and gas production. The accounting process for determining taxes and royalties payable to the state is similar, as both are generated as a percentage of the value of oil or gas produced. It is important to distinguish tax and royalty payments, as their basis and purpose is completely separate.

Production taxes are a tax on the income generated from producing the mineral. The oil and gas company pays tax on the income it receives. Unless the mineral owner is tax-exempt (such as the state for school trust lands) the mineral owner also pays a tax to the state on the royalty income they receive. The royalty payment itself is a purchase transaction. The mineral lessee is paying the mineral owner to acquire title, produce and remove the mineral from the mineral owner’s property. If the mineral company already owned the mineral property, it would naturally not pay royalties to anyone, but would still pay tax to the state on the income it generated from the production of the mineral.

Current and Past Provisions for State Royalty Rates

The current royalty rate on leases issued by the Board is 12.5% on gas and 13.0% on oil. These royalty terms have been in effect since March 1983. Administrative Rule defines the standard oil and gas royalty rates for state leases, but allows the royalty to be set at a higher rate for particular leases with proper notice.

Prior to that time, the royalty rate had been 12.5% on gas, with a three-tier 12.5/17.5/25% step-scale rate on oil. This royalty clause “stepped- up” with per well production volume. It started at 12.5% for the first 3,000 barrels per well per month, increased to 17.5% for the next 3,000 barrels per well per month, and increased again to 25% for production above 6,000 barrels per well per month. Multi-tier royalty rate schedules were more common in the early decades of oil and gas development. Production from the 1930s to the 1950s was generally from primary recovery only. That is, wells were produced on an individual basis, with no unitization agreements or enhanced recovery methods, such as waterflooding. A multi-tier royalty rate schedule lent itself reasonably well to such production activities.

From the 1950s onward, oil and gas production operations began to benefit greatly from the implementation of enhanced recovery techniques. While waterflooding was and is the most common, other forms of enhanced recovery have been developed and utilized, ranging from reinjection of natural gas, carbon dioxide, nitrogen, polymers, to fire-flooding. All have the common requirement of unitizing the operations of an entire reservoir covering multiple mineral ownerships, and sharing in the production from the entire pooled area. Within these operations, step-scale royalty rates became less and less workable. Therefore the Board took up this issue in the early 1980’s, and replaced the step-scale with the 13% royalty rate. This was based on a review of oil royalties received at the time pursuant to the step-scale, which yielded a weighted average of just under 13%. This reflected the fact that the overwhelming majority of royalty revenue was generated at the 12.5% rate.

COMPARATIVE MARKET DATA

Other mineral owners also lease their oil and gas rights. The royalty rates contained in those leases provide market comparisons on the “going-rates” for such oil and gas leases. As with most market appraisal data, it is more applicable the closer it is in terms of geography, characteristics, and time period.

Other States

Montana produces from portions of major geologic basins that extend into the state from North Dakota and Wyoming. Both states are also “land-grant” states, similar to Montana. Basic lease provisions are similar to Montana. Both states issue leases by competitive bonus bid, like Montana.

North Dakota: Oil and gas leases are issued at either a $1/6^{\text{th}}$ (16.67%) or $1/8^{\text{th}}$ (12.5%) royalty rate, based on proximity to existing production. Their land department reviews a three-mile radius around each tract offered for lease. If production exists within that radius, the royalty rate is $1/6^{\text{th}}$. If not, it is $1/8^{\text{th}}$. Over their last three lease auctions, North Dakota has issued 1,783 oil and gas leases. Based on the “three-mile radius” review, 43.5% were issued at $1/6^{\text{th}}$ royalty and 56.5% at $1/8^{\text{th}}$ royalty.

Wyoming: Oil and gas leases are initially auctioned with a $1/6^{\text{th}}$ royalty rate. Tracts not receiving bids are placed on the next sale and offered again at the lower $1/8^{\text{th}}$ royalty rate. Over their last four lease auctions, Wyoming issued 600 oil and gas leases. Of that total, 96.0% were issued at $1/6^{\text{th}}$ royalty and 4.0% at $1/8^{\text{th}}$ royalty.

Federal and Tribal Lands

Federal Lands: Federal minerals are leased and managed by the Bureau of Land Management (BLM) within the Department of Interior. Unlike state school trust lands, the BLM is not charged with ensuring leases are issued at fair market value. Their royalty rate for oil and gas leases is $1/8^{\text{th}}$ (12.5%).

Tribal Lands: In the past, it was commonplace for the Bureau of Indian Affairs and BLM to handle the leasing and management of tribal minerals. When doing so, tribal leases typically contained the same $1/8^{\text{th}}$ royalty rate as Federal leases. More recently, tribal governments have pursued more direct control over the leasing of their oil and gas resources.

- The Fort Peck Tribe held an oil and gas lease auction in May 2003, at which time the leases incorporated a $1/6^{\text{th}}$ (16.67%) royalty.
- The Crow Tribe executed a lease agreement on May 16, 2005 covering 7,680 acres. Published reports indicate the royalty rate is about 15.75%.

Private (Fee) Lands

Broad statistical information on royalty rates on fee mineral leases is difficult to obtain. One, there are numerous mineral owners. These owners typically do not own a large number of tracts. Issuance is usually through negotiation rather than lease auction. Fee mineral owners and their lessees are often secretive about the terms agreed to. In some cases, mineral leases are recorded in county records by reference only, so that royalty rates and other lease provisions are not of record. The following information provides limited data.

- Red Crown Royalties, LLC is a Colorado-based company that conducts lease auctions on fee minerals. The company apparently takes these mineral interests either through title or consignment. Tracts are frequently located in Montana and nearby states, and are bid out with a $3/16^{\text{th}}$ (18.75%) royalty. It is not known how many tracts actually are bid and issued.

- The Northeast Montana Land & Mineral Owners Association publishes royalty rate information when provided by its members. Such information is anecdotal, but commonly reflects royalty rates in the 16–18% range.

OVERRIDING ROYALTY DATA

The mineral owner is not the only party that can create a lease royalty. Companies and individuals engaged in various aspects of mineral exploration will sometimes assign and burden the lease with an additional payment obligation carved out of gross production revenue. Such provisions are commonly referred to as overriding royalty interests. An individual may acquire oil and gas leases with the intention of marketing these leases to others engaged in exploration and production. The individual generally will convey or assign his lease rights to the other party, but reserve a percentage override. Like the initial mineral owner royalty, overrides are cost-free interests in production from the lease tract.

As the term implies, the overriding royalty interest is over and above the mineral-owner royalty. For example, if the initial mineral owner royalty is 12.5% and the mineral lessee attaches a 3% overriding royalty to the lease, the new lessee will pay 15.5% of the gross production value in royalties, and will retain 3% less in net production revenue.

Before Assignment	After Assignment
Royalty Rate: 12.5%	Royalty Rate: 12.5%
Override: None	Override: 3%
Gross Production: 10,000 barrels	Gross Production: 10,000 barrels
Price: \$40.00 per barrel	Price: \$40.00 per barrel
Gross Revenue: \$400,000	Gross Revenue: \$400,000
Mineral Owner Royalty: \$50,000	Mineral Owner Royalty: \$50,000
	Override Royalty: \$12,000
Net Revenue to Lessee/Operator: \$350,000	Net Revenue to Lessee/Operator: \$338,000

Obviously, additional royalty burdens make a mineral lease less profitable for the company actually producing the lease. Purchase of a lease interest with additional royalty reservations is also a transaction between willing and knowledgeable buyers and sellers. Therefore, the amount of overriding royalty attached to oil and gas leases provides direct data on the amount of total royalty that may be reserved and still be economically attractive to the purchasing company.

Two sources of overriding royalty data are available to the department - lease assignments and communitization agreements.

Lease Assignments

Oil and gas lease interests are assignable. Full or partial working interests in the lease are commonly assigned or transferred from one party or company to another. This is one method by which companies allocate their expertise, resources and risk in a

manner that advances exploration and potential development. Other methods are also utilized in the oil and gas industry (joint-ventures, farm-outs, operating agreements, etc.).

State of Montana oil and gas leases may be assigned, but such assignments of lease interest are not recognized and are not binding on the State unless reviewed and approved by the department. Assignments submitted to the department therefore include information on both working interest transfers and reservations of overriding royalty interests.

The department sampled 295 lease assignment overrides processed between 1997 and 2004. The average overriding royalty interests attached to these leases was 6.72% for oil and 7.22% for gas for a total royalty interest of 19.72%.

Communitization Agreements

Communitization agreements are a mechanism that allows multiple mineral owners and lessees to pool their interests and share in the production from individual wells. The areas pooled are typically based on spacing orders promulgated by Montana's Board of Oil and Gas Conservation. The spacing and pooling process eliminates the drilling of unnecessary wells, thereby preventing waste and minimizing surface disturbance.

State of Montana lease interests cannot be pooled with other interests unless reviewed and approved by the department. The lessee must submit a proposed communitization agreement for review. Department review is basically three-fold. One, it must be advantageous to the state's oil and gas interest from a geologic and engineering standpoint. Two, it must provide for equitable participation of the state's interest in the pooled production. Lastly, the communitization agreement language must conform to the underlying requirements of the state's oil and gas lease.

The communitization agreement includes lease information on each tract to be pooled. Mineral owner royalty rate is almost universally included. Overrides are frequently but not always included. Unlike lease assignments, which provide information on state leases only, communitization agreements provide information on all lease ownerships (state, federal, fee).

The department reviewed a sample of 92 communitization agreements that provided overriding royalty information on 145 leases. The average total royalty burden (mineral owner and overriding royalties) was 17.75%. Oil and gas leases being pooled for commercial production were therefore viable to their respective operating companies with a total royalty burden of approximately 17.75%.

A similar study was also conducted by department staff in 1993. In that study, a total of 776 tracts were reviewed, consisting of 68 federal leases, 232 state leases, and 448 fee leases. The average mineral owner and overriding royalty interests for all leases where overrides were reported were 12.91% and 5.66%, respectively. These leases were pooled for commercial production with a total royalty burden of approximately 18.57%.

INDUSTRY ECONOMIC DATA

The Montana Board of Oil and Gas Conservation requires oil and gas companies to supply prospective or actual well economics for certain regulatory applications. Well economic summaries sometimes include royalty interest information. The department pulled examples of well economics from its files for shallow gas in the central highline area and Bakken formation oil from Richland County. These examples are notable in that they reflect anticipated or actual total royalty interests that are consistent with market data discussed above.

Example #1

BOGC Hearing Date: May 2001
Location: O'Brien Coulee Field
County: Liberty
Producing Formation: Bow Island Sands
Total Royalty Interest: 20%

Example #2

BOGC Hearing Date: March 2003
Location: Brown's Coulee Field
County: Hill
Producing Formation: Eagle
Total Royalty Interest: 20%

Example #3

BOGC Hearing Date: Multiple 2005
Location: 23N-54E, 24N-53&54E
County: Richland
Producing Formation: Bakken
Total Royalty Interest: 16% to 20%

SUMMARY AND RECOMMENDATION

The current royalty rates for leases issued by the Board on state-owned land have been in place since 1983. At 12.5% and 13% for gas and oil, respectively, they are lower than the rates required by state land departments in North Dakota and Wyoming. The exemptions for a lower 1/8th rate are discussed below. These states are adjacent to Montana and produce oil and gas from some of the same major geologic basins. Tribal governments and fee mineral owners have and are reporting higher royalty rates. Lease assignment and pooling agreement information confirms higher lease royalties are marketable and viable within the Montana oil and gas industry. Economic data prepared by industry shows that wells, ranging from shallow gas to dual-lateral horizontals in the

Bakken formation, are analyzed with either actual or anticipated total royalty interest significantly above the current rate for state-owned land.

The threshold decision presented to the Board is whether the royalty rate provisions for oil and gas leases issued on state school trust land should remain at their current rates or be increased. While the available data is derived from a multitude of sources, all consistently support the viability of a total royalty interest between 16 and 20 percent.

If the Board concludes a higher rate would secure fair market value to the state, two issues come into play:

- Selection of the royalty rate
- Process for implementation

Royalty Rate

The Board has the constitutional authority to set the royalty rate at any amount it deems appropriate, subject only to a statutory minimum of 12.5%. Review data suggests a reasonable range of between 16 and 20 percent. The department finds the data from Wyoming and North Dakota state land departments to be persuasive, and recommends implementing a royalty rate of $1/6^{\text{th}}$ (16.67%).

This rate still leaves an industry margin for modest overriding royalty interests. While override and industry data documents the ability of oil and gas leases to support total royalty burdens as high as 20%, specific economics vary with the depth, geology, reservoir characteristics and productivity of the target formations; the market price of the oil or gas produced, as well as development and operating costs associated with applicable recovery methods.

Both North Dakota and Wyoming have adopted a $1/6^{\text{th}}$ royalty rate, but they have also provided differing mechanisms for a lower royalty rate in certain circumstances.

- North Dakota reviews each tract and offers them at $1/6^{\text{th}}$ or $1/8^{\text{th}}$ royalty based on whether production exists within a three-mile radius. As a result, North Dakota issued 43.5% of its leases at $1/6^{\text{th}}$ royalty over the last year, with the other 56.5% issued at $1/8^{\text{th}}$.
- Wyoming offers its leases at $1/6^{\text{th}}$ royalty. If no bids are received, it offers them again at the next sale at $1/8^{\text{th}}$ royalty. This method resulted in Wyoming issuing 96.0% of its leases over the past three sales with a $1/6^{\text{th}}$ royalty, leaving 4.0% issued at the lower $1/8^{\text{th}}$ rate.

These methods transition from the “old standard” of $1/8^{\text{th}}$ royalty to an evolving recognition of $1/6^{\text{th}}$ royalty interest for the mineral owner. One distinguishes royalty rate based on proximity to production, the other based on bidding, albeit with a loophole for interested parties to hold out for the tract to be reoffered at $1/8^{\text{th}}$ royalty. Both methods share a common weakness, in that they allow for tracts to be issued at the lower royalty rate even if an interested party would have taken the lease at the higher royalty rate. In the case of North Dakota, the tract is not even offered at $1/6^{\text{th}}$ royalty if production is

three or more miles away. Wyoming does initially offer all tracts at 1/6th royalty, but an applicant need not bid on the tract at the sale if no one else bids, so even if they were willing to take the lease with a 1/6th royalty, they can wait until the next quarterly sale and pick up the lease with a 1/8th royalty.

The premise behind these dual royalty rate structures is that leases should have a lower royalty rate if they are farther away from existing production, or not subject to multiple bidders at auction. This is arguably a reflection that the leases are more speculative, and therefore do not support a higher royalty rate. Missing from this rationale is the fact that royalty rates, whether mineral owner or override, do not trigger unless and until commercial production is actually discovered. The holding cost for a non-producing lease is the same regardless of the amount of mineral owner and overriding royalties. A lower royalty rate provides industry the opportunity to attach higher overriding royalties to the lease, while the mineral owner receives less revenue if the lease becomes productive. The data reviewed indicates a 1/6th royalty already leaves room for modest overriding royalties to become part of the lease. The lower 1/8th royalty rate provides additional margin for overrides at the ultimate expense of the school trust beneficiaries.

Process for Implementation

If the Board chooses to adjust the royalty rate on oil and gas leases, timing and process issues arise. First, the Board must consider whether to implement a rate under its discretion in existing administrative rule, or implement a rule change that expressly identifies the new royalty rate. Second, the department will need to adjust the leasing process consistent with the specifics of the royalty rate adopted by the Board. Both issues affect timing of implementation.

Existing statute (77-3-432, MCA) provides a floor of 12.5% for oil and gas royalty rates implemented by the Board. Administrative rules promulgated by the Board provide standard rates with discretion to adjust for particular leases. The issue presented is whether a rule change is required prior to implementing any change in the royalty rate. The applicable portion of ARM 36.25.210 follows below:

36.25.210 ROYALTIES (1) The lessee shall pay in cash or deliver in kind to the lessor at its option, on all oil and gas produced and saved from the leased premises and not used for light, fuel and operation purposes on the leased premises, a royalty which shall be at the following rates unless, in regard to a particular lease, the department advertises in its lease sale notices that the royalty will be at a higher rate:

- (a) On gas at the rate of 12 1/2%.
- (b) On oil at the rate of 13%.

...

Administrative rule clearly provides discretion to set royalty at a higher rate if the department advertises the higher rate in its lease sale notices. It would be appropriate to revise administrative rule to reflect any change in the standard royalty rate, but the Board and department are not prohibited from advertising and auctioning leases at a higher royalty rate. This presents the Board with three options:

1. Apply and advertise the new royalty rate beginning with the next lease sale (September 7, 2005). Concurrently, begin the rulemaking process to revise administrative rule to reflect the Board decision.
2. Continue issuing leases at current royalty rates pursuant to the quarterly lease sale process. Initiate rulemaking and adjust lease royalty rates at the next sale following completion of rulemaking.
3. No action.

Option 1 is obviously in the best interest of the school trust in that it implements the royalty rate adopted by the Board, and allows lease sales to continue without interruption. It would require the department to seek comment from interested parties for the Board's consideration at the August 15, 2005 meeting. The Board would also need to adopt any change in royalty rate at that meeting. The department would need to include the new royalty rate in its notice and final tract list, which is scheduled to go out the day of the Board meeting. If the Board chooses this option, the rulemaking process would follow on the heels of a royalty rate decision already made by the Board. The Board would review any additional comments received during rulemaking, and could make changes as it deemed appropriate.

Option 2 has the advantage of maintaining a stable and uninterrupted leasing process at current royalty rates pending completion of rulemaking. The downside is that one or two quarterly sales could be completed under existing royalty rates. The department anticipates 150 - 250 leases per sale for the next two sales. Any production which may eventually be generated from these leases will generate less royalty revenue because of the lower royalty rate.

Option 3 is the status quo. Current royalty rates would be left in place.

Department Recommendation

The department recommends implementing a flat royalty rate of $1/6^{\text{th}}$ (16.67%). This is consistent with the higher rates previously adopted by North Dakota and Wyoming. The department believes the available information does not support the concept of dual royalty rates. The degree of interest in any particular tract will be reflected in the amount of competitive bidding. If interest is low, the applicant will receive the tract at the minimum bid. The royalty rate for possible future production does not correlate to or impact the holding cost of an undeveloped lease. It is therefore not in the school trusts' interest to lower the royalty rate on potential future production based on current perceptions of speculative interest.

If the Board should choose to adopt a new uniform royalty rate at its August 15, 2005 meeting, the department recommends incorporation of the rate through notice per ARM 36.25.210(1), and include on leases auctioned at the next quarterly lease sale on September 7, 2005. The department would also commence rulemaking concurrent with the Board's decision.

Report Update – August 3, 2005

The department presented the July 5, 2005 version of this report to the Land Board at its July 18, 2005 meeting. Per Land Board direction, the department requested public review and comment on the information and recommendation contained in this report. Comments received are presented in the following section.

PUBLIC REVIEW AND COMMENTS

Notification Process

Notices requesting comment were mailed to our oil and gas mailing list, which currently exceeds 900 recipients. It is comprised of individuals, companies, public interest groups, surface and mineral owners, state and federal agencies. The department also provided the report and request for comments to oil and gas industry organizations, for distribution to their members as appropriate. The department issued a press release and placed the report and comment request on our website. As of August 3, 2005, the department had received 20 comments

Comment Summary and Response

Staff received comments both for and against an increase in the oil and gas royalty rate. The main comments are summarized below, along with department information or response, as appropriate.

1. Prices are high now, but could drop significantly in the future, as happened in the 1980's.

Department: Oil and gas prices can fluctuate, sometimes significantly, over time. A percent-of-value royalty rate automatically adjusts to price fluctuations. If prices were to drop so dramatically that a royalty rate reduction was considered prudent, the Land Board could exercise its discretion to allow temporary royalty rate reductions, subject to the statutory floor of 12.5%.

2. Wells become uneconomic sooner. Low productivity wells ("stripper") wells merit lower royalty rate.

Department: A percent-of-value royalty rate automatically adjusts to volume fluctuations. The State of Montana's tax policy has reduced production tax rates by varying degrees for stripper production over time. Incentives are much more effective and appropriate when implemented through tax rates, since a tax rate adjustment applies to all applicable wells, regardless of whether it comes from a state, private or federal lease. By contrast, a royalty rate reduction on state land leases affects only state school trust lands, which are typically 5-10% of total mineral production in an area. In any event, implementing a royalty rate reduction for stripper

wells may not be appropriate if prices remain high.

- 3. Production tax rates in Montana are still some of the highest in the Rocky Mountain region. This, coupled with the current effort to increase royalty rates, is perceived as being greedy and not supportive of the oil and gas industry in Montana.**

Department: Tax policy is beyond the purview or control of the department and board. A royalty payment is not a tax, but payment to the mineral owner (state, private or federal) for oil and gas produced from their land. The Land Board is responsible for obtaining fair market value for disposition of interests in school trust land, such as oil and gas.

- 4. Other mineral owners do not require rental payments when leases are producing royalties. Montana should do the same.**

Department: Montana state land oil and gas leases do credit rentals paid against royalties.

- 5. Most state leases do not produce oil or gas.**

Department: Royalty rates have no impact on a non-productive lease.

- 6. The State should determine known geologic areas for oil and gas, then it could hold those areas out for higher royalty rates. State should adopt the “3 mile radius” test used in North Dakota.**

Department: Royalty rates apply to actual production. They have no impact on a non-productive lease. The department manages 5-10% of a typical area of interest. It does not possess the information or expertise of exploration companies. Commercial production is not just a function of geology, but also of technology and price.

North Dakota’s radius test is not recommended because it allows leases to be issued at a lower royalty rate even if interested parties would take the lease at the higher royalty rate. Wyoming’s experience is that virtually all of its leases are taken at 16.67%.

- 7. A royalty rate increase will inhibit or make impossible further exploration or development.**

Department: The department’s review found that leases with royalty rates of 16.67% are being taken and developed by industry in Montana as well as Wyoming and North Dakota. The department’s recommendation is for a comparable royalty rate for state school trust land. An increased royalty rate to the school trust could curtail the amount of override that lessees and third parties would carve from state leases.

8. Royalty rates should be adopted county by county.

Department: Commercial production is a function of price and technology, not just geology applicable to any given county. If the Board adjusts royalty rates, it will apply only to new leases, not existing ones. New leases and new exploration may develop new production in new formations, or in known formations with new technology.

The department's review analyzed information on additional royalties placed on oil and gas leases. This gives an indication of the amount of royalty operators and lessees can economically support with their production operations. Even in counties with older, less prolific production (such as Toole and Liberty), department data shows average overriding royalties between 5 and 6 percent, bringing the total lease royalty to 18 – 19%. The department believes a 16.67% mineral owner royalty is reasonable.

9. The recommended royalty rate represents a 33% increase.

Department: A 16.67% royalty rate is indeed 33% higher than a 12.5% royalty rate. However, it does not represent a 33% reduction in the lessee's working interest. Increasing the state's mineral owner royalty by 4.17 percentage points decreases the lessee's net revenue interest by the same 4.17 percentage points.

10. Secondary or tertiary production is more expensive, meriting a lower royalty rate.

Department: Secondary and tertiary production operations do require substantial incremental costs, but also generate substantial incremental production. In many cases, secondary recovery exceeds primary. In any event, state statute already provides a mechanism for the department to reduce overriding royalties if they threaten the economic viability of the lease. The department has not received any requests for reduction in overriding royalty.

Complete Comments Received

Full copies of comments received are presented below.